	Application No.	Applicant(s)
Notice of Allowability	10/039,255	KERLY, PHILIP J.
	Examiner	**Art Unit**	
	VAN H. NGUYEN	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to <u>Applicant's amendments on4/22/05 and 7/14/05</u> .

2. ☒ The allowed claim(s) is/are <u>1, 6-10, 15-20, 24, and 26 (now renumbered as 1-14)</u>.

3. ☒ The drawings filed on <u>2/2/02</u> are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152)·which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☐ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

MENG-AL T. AN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Examiner's Amendment

I.   An examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the

payment of the issue fee.

II.   Authorization for this examiner's amendment was given in a telephone interview with

Mr. Mark L. Watson (Reg. No. 46, 322) on July 14, 2005.

III.   **The application has been amended as follows:**

        **A.   All previous copies of claims 1, 10, 19, 24, and 26 have been replaced with the

following clean copy of claims 1, 10, 19, 24, and 26 as amended by the Examiner's

amendment:**

Claim 1. A method comprising:

        intercepting an operating system thread creation request for a function comprising:

                intercepting an operating system thread creation request for a first function

                        including:

                                intercepting a call to an operating system thread creation function having a

                                        reference to said first function and a function parameter, and

creating a thread for a second function including:

determining a stack pointer offset,

creating a data structure having said reference to said first function,

said function parameter, and said stack pointer offset, and

generating a call to said operating system thread creation function

having a reference to said second function and a reference

to said data structure,

creating a thread in response to intercepting said operating system thread creation

request comprises creating a thread for said second function,

creating a thread in response to intercepting said operating system thread creation

request, said thread including a stack;

modifying an initial stack pointer of said stack; and

executing said second function utilizing said thread in response to modifying said initial

stack pointer of said stack;

wherein intercepting said operating system thread creation request for a function

comprises:

linking a dynamic-link library to a process, said process including a reference

table;

initializing said dynamic-link library; and

wherein said reference table includes a reference corresponding to said operating

system thread creation function and initializing said dynamic-link library

comprises replacing said reference corresponding to said operating system

thread creation function with a reference corresponding to a substitute

thread creation function.

Claim 10.   A tangible machine-accessible medium having machine-executable instructions

embodied therein which, when executed by a machine, causes said machine to perform a method

comprising:

intercepting an operating system thread creation request for a function comprising:

intercepting an operating system thread creation request for a first function

including:

intercepting a call to an operating system thread creation function having a

reference to said first function and a function parameter, and

creating a thread for a second function including:

determining a stack pointer offset,

creating a data structure having said reference to said first function,

said function parameter, and said stack pointer offset, and

generating a call to said operating system thread creation function

having a reference to said second function and a reference

to said data structure,

creating a thread in response to intercepting said operating system thread creation

request comprises creating a thread for said second function,

creating a thread in response to intercepting said operating system thread creation

request, said thread including a stack;

modifying an initial stack pointer of said stack; and

executing said second function utilizing said thread in response to modifying said initial

stack pointer of said stack.

Wherein intercepting said operating system thread creation request for said function

further comprises:

linking a dynamic-link library to a process, said process including a reference

table; initializing said dynamic-link library; and

wherein said reference table includes a reference corresponding to said operating

system thread creation function and initializing said dynamic-link library

comprises replacing said reference corresponding to said operating system

thread creation function with a reference corresponding to a substitute

thread creation function.

Claim 19.   A data processing system comprising:

a processor;

a first memory coupled to said processor, said first memory comprising a virtually

addressable cache memory; and

a second memory coupled to said first memory, said second memory comprising:

a first program module to intercept an operating system thread creation request for

a function and to create a thread in response to an interception of said

operating system thread creation request comprising:

said first program module to intercept an operating system thread

creation request for a first function and to create a thread

for a second function including:

said first program module to intercept a call to said

operating system thread creation function having a

reference to said first function and a function

parameter; to determine a stack pointer offset; to

create a data structure having said reference to said

first function, said function parameter, and said

stack pointer offset; and to generate a call to said

operating system thread creation function having a

reference to said second function and a reference to

said data structure;

a second program module to create a thread in response to intercepting said

operating system thread creation request, said thread including a stack;

said second program module to modify an initial stack pointer of said stack and to

execute said second function utilizing said thread in response to a

modification of said initial stack pointer of said stack including:

said second program module to execute said first function,

wherein said first program module and said second program module comprise: a

dynamic-link library linked with a process, said process including a

reference table, and

wherein said reference table includes a reference corresponding to said

operating system thread creation function and initializing said

dynamic-link library comprises replacing said reference

corresponding to said operating system thread creation function

with a reference corresponding to a substitute thread creation

function.

24.   The data processing system of claim 19, wherein said second preprogram module

comprises said second function.

26.   An apparatus comprising:

A data processing system comprising:

    a processor;

    a first memory coupled to said processor, said first memory comprising a virtually

        addressable cache memory; and

    a second memory coupled to said first memory, said second memory comprising:

        a first program module to intercept an operating system thread creation request for

            a function and to create a thread in response to an interception of said

            operating system thread creation request comprising:

                said first program module to intercept an operating system thread

                    creation request for a first function and to create a thread

                    for a second function including:

                    said first program module to intercept a call to said

operating system thread creation function having a
reference to said first function and a function
parameter; to determine a stack pointer offset; to
create a data structure having said reference to said
first function, said function parameter, and said
stack pointer offset; and to generate a call to said
operating system thread creation function having a
reference to said second function and a reference to
said data structure;

a second program module to create a thread in response to intercepting said
operating system thread creation request, said thread including a stack;

said second program module to modify an initial stack pointer of said stack and to
execute said second function utilizing said thread in response to a
modification of said initial stack pointer of said stack including:

said second program module to execute said first function,

wherein said first program module and said second program module comprise: a
dynamic-link library linked with a process, said process including a
reference table, and

wherein said reference table includes a reference corresponding to said
operating system thread creation function and initializing said
dynamic-link library comprises replacing said reference
corresponding to said operating system thread creation function

with a reference corresponding to a substitute thread creation

function.

B.   Claims 2, 3, 11, 12, 21, 22, and 27 have been cancelled.

IV.   Any inquiry concerning this communication or earlier communications from the
examiner should be directed to VAN H. NGUYEN whose telephone number is (571) 272-3765.
        The examiner can normally be reached on Monday-Thursday from 8:30AM - 6:00PM.
The examiner can also be reached on alternative Friday.
        If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Meng-Ai An can be reached on (571) 272-3756.
        The fax phone number for the organization where this application or proceeding is
assigned is **571-273-8300.**
        Information regarding the status of an application may be obtained from the Patent
Application Information Retrieval (PAIR) system. Status information for published applications
may be obtained from either Private PAIR or Public PAIR. Status information for unpublished
applications is available through Private PAIR only.
        For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you
have questions on access to the Private PAIR system, contact the Electronic Business Center
(EBC) at 866-217-9197 (toll-free).

        Any response to this action should be mailed to:
        Commissioner for patents
        P O Box 1450
        Alexandria, VA 22313-1450

VHN

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